National Digital Forecast Database (NDFD)
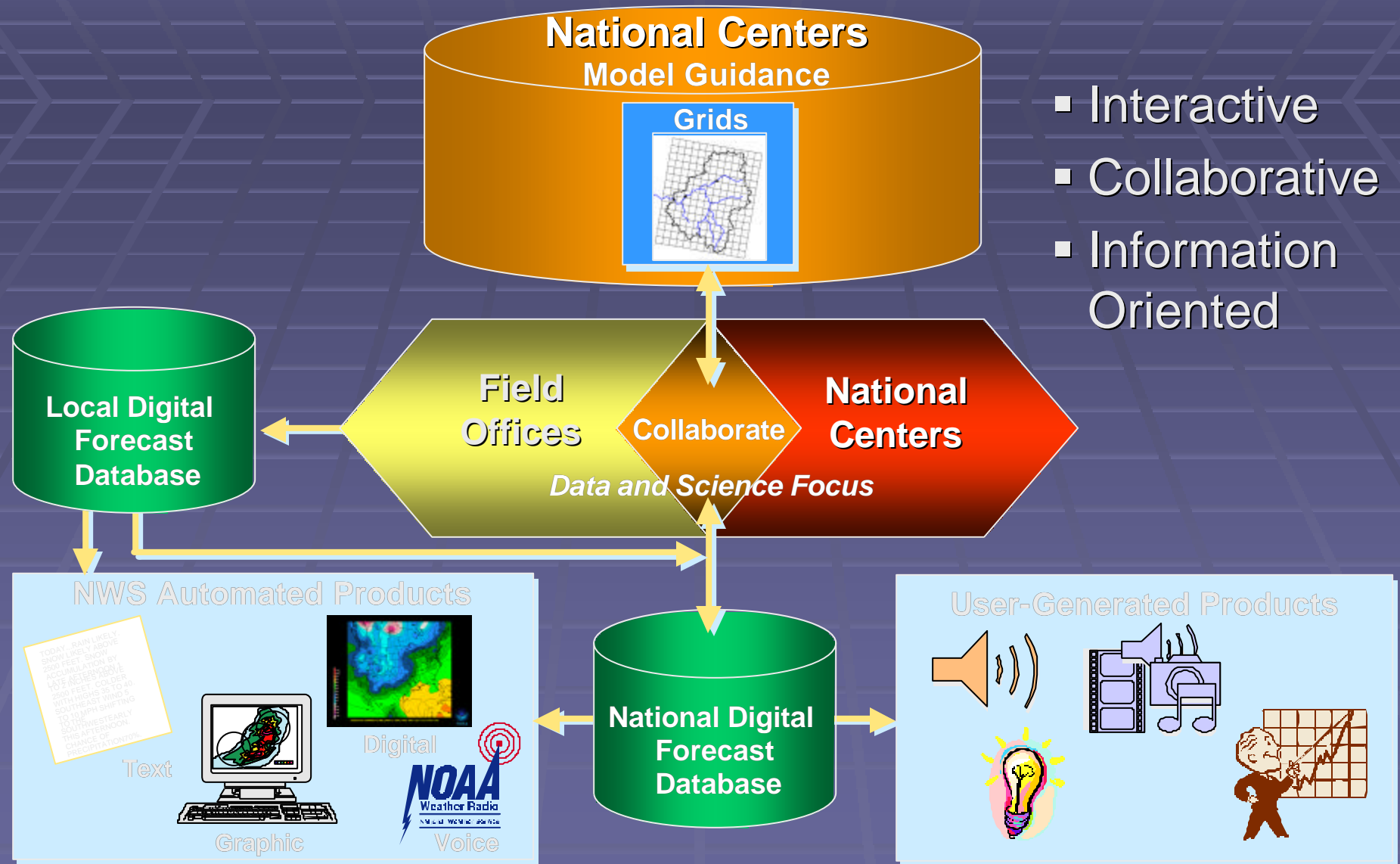
What it is

Envisioned use
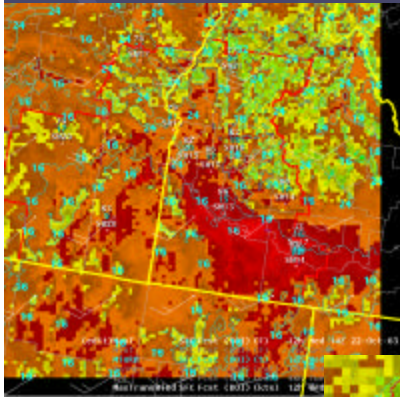
How to get it

New Forecasting Process
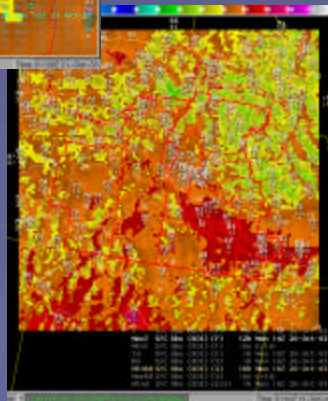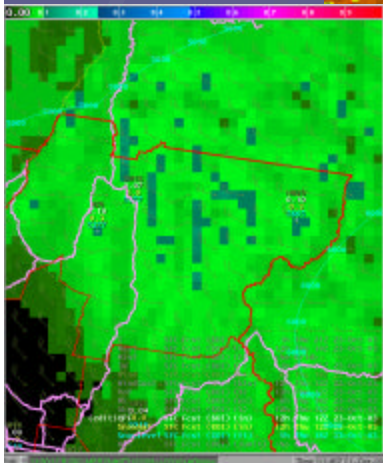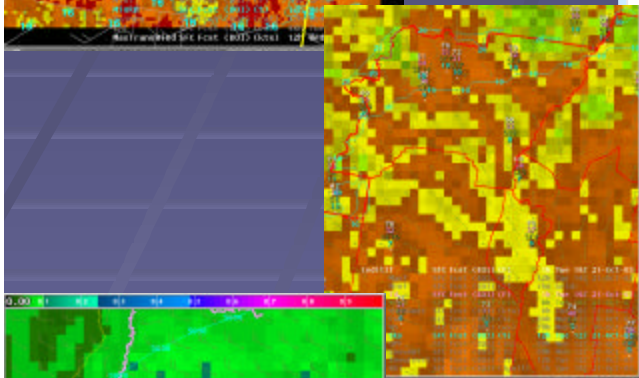
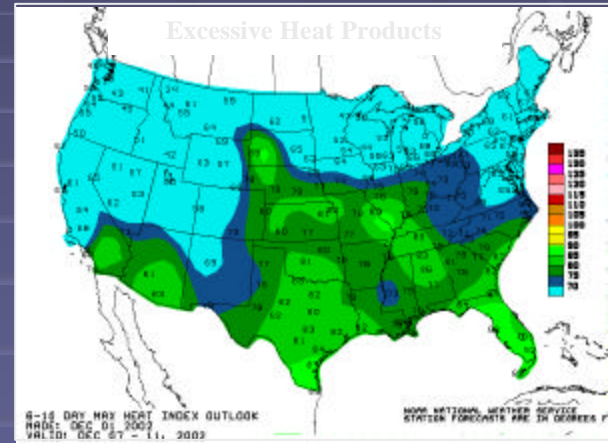# Digital Forecasting Today - Product/Service Improvements

Wide Array of Data
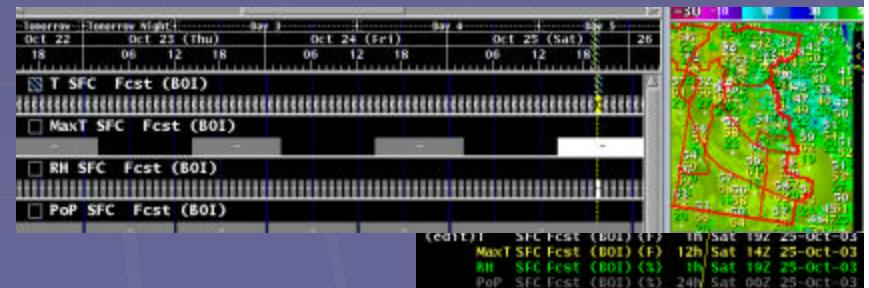
Grids/Graphics Facilitate Communication of Forecast Information

Direct and Interactive Access to Products

Excessive Heat Products

Increased Temporal/Spatial Resolution

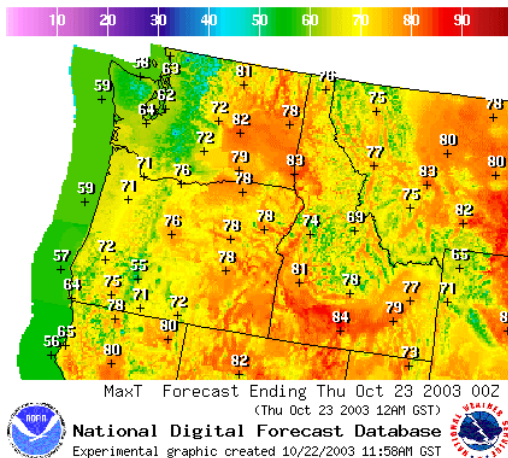# Real Time Government
Why Integrate a Weather Data Layer?

- Improve responsiveness, efficiency and effectiveness by incorporating real time weather and hydrology information in geospatial data uses.
  - 10/2003 Paraphrased from remarks by NOAA NWS chief information officer Barry West

- *Technologies Hold Promise for Wildland Fire Management, but Challenges Remain.*
  - 9/25/2003 Gov't Computer News
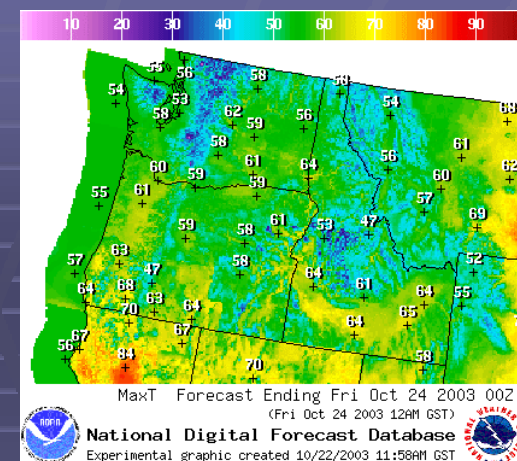
What can be done with digital data?

- **Produce Public and Fire Weather text tabular and graphic data from a single data base**

- **Data can be used as input to…**
  - **Tailored Products: Commercial weather companies & Emergency managers use grids to generate their own overlays**
  - **Burn models**
  - **Smoke management dispersion models**
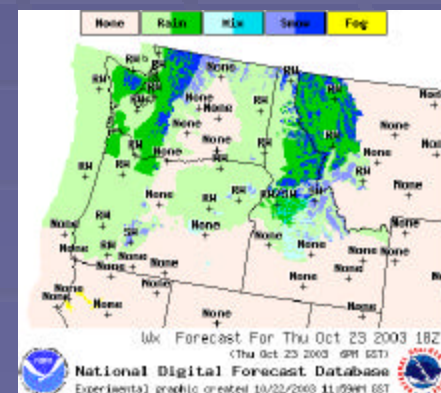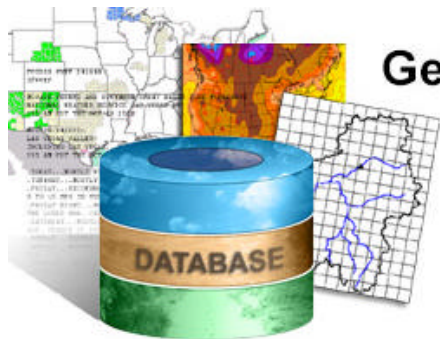 - **? Whatever you deem desirable ?**

NDFD Grids
Details

- **Prepared at each Weather Forecast Office (WFO)**
  - **5 km resolution, WFO hardware upgrade and 2.5 km by the end of 2003**
  - **Blend of numerical weather models, model output statistics, and forecaster value added**
- **Collaborated forecasts**
  - **via Internet chat and phone**
  - **Boundary discrepancy computation local and national**
  - **National Centers for Environmental Prediction event-driven graphics and chat sessions**
- **Grid process at Boise directly edit some grids, then derive others**
  - **MaxT MinT → T**
  - **Td → RH MaxRH MinRH**
  - **Sky (cloud cover) Snow Level PoP→CWR,**
  - **Quantitative precipitation forecasts (QPF) → snow amount**
  - **Wind → wind gust**
  - **Varies → Wx**
    - **Frost (MinT Max RH Sky Wind)**
    - **Fog (Frost parameters plus elevation / basin)**
    - **Snow Amount (QPF, Temperature, snow level)**

How to get Digital Weather Data

General Information

NDFD
NWS National Digital
Forecast Database

- **NDFD DataDownload and IMGGen**
  - **Provides software to convert from GRIB2 to a simpler (albeit larger) file format.**
  - **Provide a means to view the "meta" data without needing to reference "The WMO GRIB2 Document FM92-X11GRIB" document.**
  - **Provide an example of how to call the Decoder library.**
    - **www.nws.noaa.gov/ndfd/technical/technical.htm**
    - **www.nws.noaa.gov/mdl/NDFD_GRIB2Decoder/howto.htm**
    - **http://www.nws.noaa.gov/mdl/NDFD_GRIB2Decoder/download.htm**
- **Demo Software on Laptop**